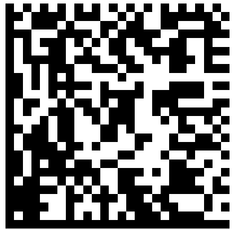




Item Unique Identification (IUID) Basics

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Scope

- What is Item Unique Identification?
- Why is IUID Important the Army and DOD?
- Which Items Require IUID?
- Army Directive 2016-21
- Looking to the Future
- IUID Implementation Plans
- AMIS Resources to Assist You

IUID / UII Definitions

- Item Unique Identification (IUID) means a system of marking items delivered to the DOD with unique item identifiers that have machine-readable data elements to distinguish an item from all other like and unlike items. “IUID” generally refers to the program, rather than the data.
- Unique Item Identifier (UII) means a set of data marked on items that is globally-unique, unambiguous, and robust enough to ensure data information quality throughout life and to support multi-faceted business applications and users

UII is Like a Social Security Number - for Things

Item Unique Identification (IUID)

1. Assign an item a globally-unique identification number

Will <u>functionally</u> replace the SN

2. Register that number and supporting pedigree information in a central database

3. Apply a permanent machine-readable mark to the item, containing that Unique Item Identifier (UII)



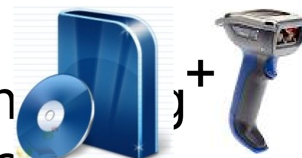
Enables error-free data transfer



4. Use that globally-unique identification number for lifecycle management of the item



5. DOD and Army transition to use of IUID involves:
   - The marking of millions of items meeting criteria that are already in the inventory
   - Automated systems enabled to use the UII



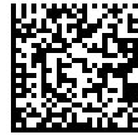
IUID = Item Unique Identification
UII = Unique Item Identifier
DOD = Department of Defense

Item Unique Identification

Item Unique Identification is a simple, easily understandable, common sense concept.



What is Encoded in the Data Matrix?



- Data from which the unique item identifier (UII) is <u>derived</u>
- In most cases, the data matrix does not contain all of the data found in the derived UII
- There are over 50 different ways to encode a UII in the data matrix
- To extract a UII from the data matrix requires software that converts the data read by the imager into the UII. This software can be resident in either the imager or in a computer to which the imager passes what it reads

Serial Number (SN) vs. UII



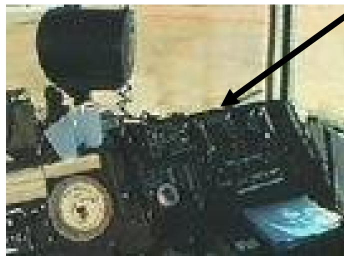




SN is Not Globally Unique

SN 00002345

UII Is Globally Unique







UII – Unique Item Identifier

Serial Number (SN) vs. UII (Cont.)



UII=D12374HW76-2100002345

SN is Not

Globally Unique



UII=D44L2300002345

SN 00002345

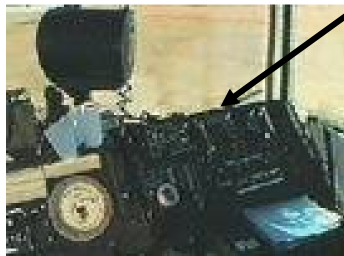


UII=D7932800002345



UII Is

Globally Unique



UII=D9VW0100002345



UII=D881024432700002345



UII=D68D2200002345

UII – Unique Item Identifier

Transitioning to IUID - a Simple Concept

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SERIALLY MANAGED

BECOMES IN EFFECT

UNIQUELY MANAGED

D192071005678



MANUAL DATA ENTRY

BECOMES

AUTOMATED DATA ENTRY

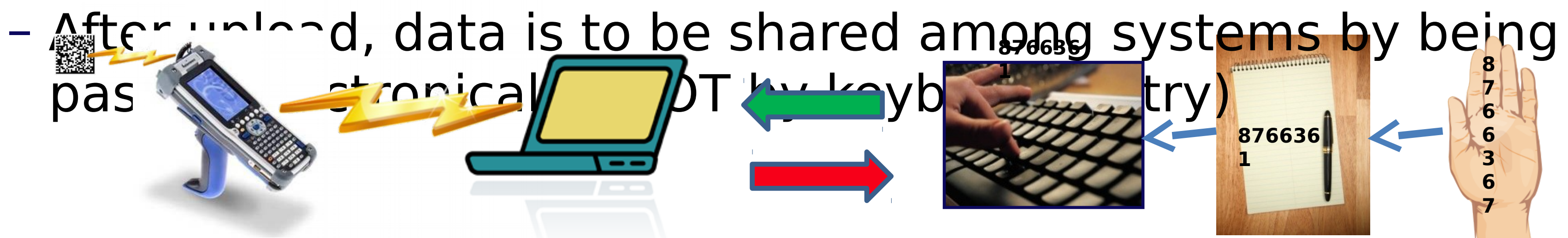




IUID – Item Unique Identification

Changes When Dealing With Uniquely Identified vs. Serialized Items

- Unique Item Identifier (UII) is
  - Derived from data encoded in a data matrix mark that requires an imager to read and software to do the derivation process
  - Normally not marked on the item in human readable text
  - Associated with the item in maintenance, property accountability and other databases – a single data element that uniquely identifies an item
- The need to use an imager to capture the UII ensures data integrity
  - After upload, data is to be shared among systems by being passed electronically (NOT by keyboard entry)



Importance of IUID

- Why is IUID important to the Army and DOD?

UII =



DATA

which will enable reliable unique item level traceability across all DOD business systems

A <u>single data element</u> that will identify the item

IUID- Essential to Materiel Readiness



Functions supported by IUID

Speed and Precision in Data Capture

Capabilities	Requirements	Objectives
Financial Management Warranty Management Tracking Item Performance & Age Failure Analysis Reliability Improvement Engineering Design Analysis Maintenance Productivity Supply Productivity Safety Accountability READINESS!	Value Processes Analysis	Strategic Serialized Asset Management
Automated Data Collection	Information Systems Supply Chain Events	Item Unique Identification (IUID)
Machine Readable Marking	Uniquely Identified Items	Unique Item Identifier (UII)

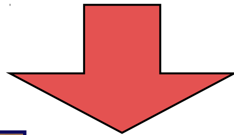
Payback

Resources



Automatic Identification Technology (AIT) is Key to IUID Data Integrity

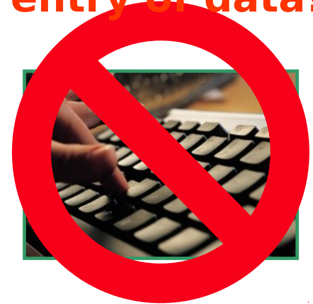
D123455513HGR13136574867635009

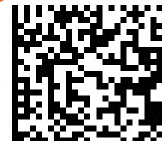


UII can contain up to 50 characters



Goal – Eliminate key entry of data!





Imager Enables Error-Free Data Transfer!

Today -



Tomorrow - ?





Each uniquely identified item must bear a data matrix symbol containing the data from which its Unique Item Identifier (UII) is derived.

Elements of an IUID-enabled Process



AIT – Automatic Identification Technology

AIS – Automated Information System

IUID – Item Unique Identification

UII – Unique Item Identifier





CL – Supply Class
GCSS-A – Global Combat Support System - Army

Items Requiring IUID

- Which Items require IUID?
  - NOTE: OSD is in the process of revising the IUID requirement. DODI 8320.04 was revised in Sep 15. A corresponding DFARS 211.274-2 revision is pending. AR 700-145 was revised in Feb 16. A new interim Army Serialized Item Management (SIM) Policy was published as Army Directive 2016-21 in May 2016. The DOD Guide to Uniquely Identifying Items, Version 3.0, will likely be updated to reflect the new IUID criteria.
  - Any item that is required to be serialized should be looked at as a candidate for IUID. "The UII will functionally replace the serial number (items will continue to have serial numbers)."
  - IUID criteria applies to all tangible personal property, regardless of whether it has an NSN
  - Eventually the Federal Logistics Information System (FLIS) and WebFLIS will populate an "IUID Indicator" identifying whether each NSN requires IUID (Y/N). Today, the IUID Indicator is unreliable.
  - Unit level personnel are not authorized to IUID-mark items without authorization and direction from higher HQ.

OSD – Office of the Secretary of Defense
NSN – National Stock Number
UII – Unique Item Identifier

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Army Directive 2016-21

- Promulgates Army Interim Serialized Item Management (SIM) Policy
  - Is consistent with AR 700-145 and DODI 8320.04
  - If items require SIM, they require IUID.
  - States the criteria for identifying items requiring SIM; it relies heavily on the use of FEDLOG catalog codes.
    - If the item qualifies based on one or more of the catalog codes listed, the assumption is that it should receive IUID.*
    - If the item is not catalogued but a similar item that is cataloged qualifies based on one or more of the catalog codes listed, the assumption is that it should receive IUID. *
    - If neither the item nor a similar item qualifies based on a catalog code, the assumption is that it should not receive IUID.
    - If the MATDEV or item manager thinks that the "assumption" (either to require IUID or not to require IUID) is inappropriate, based on a business case, they can ask Army G4 to bless an exception.

** Exception: An item coded pilferable is not automatically assumed to require SIM. It requires analysis to decide whether there is a business case supporting SIM (unless the item also meets other catalog criteria for SIM).*

FEDLOG - Federal Logistics Data
MATDEV – Materiel Developer

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Looking to the Future



- Expect
  - DFARS 211.274-2 revision to make it consistent with DODI 8320.04..
  - As the Army Executive Agent for legacy item marking, AMC will continue executing an enterprise-oriented Army IUID legacy marking program for Class II, and VII in FY12-16 and likely beyond; the program will field-apply additive IUID marks to identified unmarked class II and VII legacy items requiring IUID. The current goal is for completion by September 2016, but that goal is unlikely to be met.
  - Army G-4 will remain responsible to ensure that legacy items meeting mandatory IUID criteria in other classes of supply and items in Class II, and VII that are not marked by the AMC program are marked and registered, and that the industrial base replaces any additive IUID marks with IUID marks embedded in equipment data plates/labels when the equipment undergoes depot-level maintenance
  - ASA (ALT) and the acquisition community will be responsible to ensure that newly acquired items requiring IUID are marked prior to

AMC – Army Materiel Command
ASA(ALT) – Assistant Secretary of the Army, Acquisition Logistics and Technology
PM – Program Management
SIM _ Serialized Item Management
WAWF – Wide Area Workflow

IUID Implementation Plans

AMIS

- AR 700-145 requires Item Managers and MATDEVs to submit and annually review and update IUID Implementation Plans
  - Paragraph 3-1 of AR 700-145 lists *minimum* plan content requirements
  - The US Army Logistics Support Activity (LOGSA) has automated IUID Plan creation in its System Planning and Requirement Software (SYSPARS), a document generation program.
  - To access and download the SYSPARS software: https://www.logsa.army.mil/lec/syspars/download.cfm
  - The advantage of using SYSPARS is that it ensures that the plan covers all of the required bases and it offers in multiple choice format “school solutions” for most of the required components of the plan.
  - SYSPARS output is exported to Microsoft Word and then massaged to eliminate “rough edges” and add any additional information the author wants to have in the plan.
  - SYSPARS is frequently updated as guidance and best practices change and should be downloaded when it is to be used to ensure the most

MATDEV – Materiel Developer

Where Can You Get Help?

- AR 70-1
  - 6–15. Item unique identification
    - *b. The PMs will—*
      - “(8) Use the PM, J–AIT” (now AMIS) “as a source for AIT products and technical expertise”



- AMIS website: http://www.usarmyamis.army.mil/CustomerSupport/iuid.html
- AMIS IUID POC:
  - Email: usarmy.belvoir.peo-eis.list.amis-iuid@mail.mil
  - (703) 806-0547 or DSN 656-0547

When it comes to most aspects of IUID implementation, we’ve been there and done that, or know people who have.